

Title (en)  
ATR OBJECTIVE AND METHOD FOR SAMPLE ANALYSIS

Publication  
**EP 0489588 A3 19930120 (EN)**

Application  
**EP 91311294 A 19911204**

Priority  
US 62285290 A 19901206

Abstract (en)  
[origin: US5093580A] An optical system, apparatus and method includes a visible energy source and a radiant energy source, means to direct visible or radiant energy at preselected but variable angles of incidence through an ATR crystal to a sample at a sample plane and means to collect encoded radiant energy reflected or emitted from the sample through the ATR crystal to a detector at preselected but variable angles of reflection or emission. The optical system, apparatus and method may further include a lens or other optical element selectively positioned in the optical path to change the focus of the optical path to initially survey the sample on a movable stage at a focal plane spaced from the sample plane. The survey mode permits easy identification of a surface area of interest on the sample to permit that area of interest to be moved into contact with a surface of the ATR crystal at the sample plane for subsequent accurate analysis thereof. The optical system, apparatus and method may have three modes of operation (namely a survey mode, a viewing mode or an analysis mode) passing visible or radiant energy to and from a sample or reference material through an ATR crystal.

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**G01N 21/55**

IPC 8 full level  
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Citation (search report)

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